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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,865	02/28/2007	Klaus Vogelsang	WW034USU	1091

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EXAMINER

DUFF, DOUGLAS J

ART UNIT	PAPER NUMBER
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3748

MAIL DATE	DELIVERY MODE
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10/12/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/576,865

Applicant(s)

VOGELSANG ET AL.

Examiner

Douglas J. Duff

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2/28/07.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 11-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Hiereth et al. (US 5729978). Regarding claim 11, Hiereth et al. disclose a method for optimizing the action of the engine brake in a drive unit in a motor vehicle comprising providing an internal combustion engine (1) comprising a crankshaft; providing an exhaust gas turbine (8) along an exhaust gas flow of the internal combustion engine for the conversion of exhaust gas energy into drive energy, the exhaust gas turbine (8) being operably connected to the crankshaft (3) via a transfer device (15 to 13a); providing a hydrodynamic coupling comprising a primary wheel (15) and a secondary wheel (3) which is disposed in the transfer device, wherein the secondary wheel is coupled with the crankshaft (3) and the primary wheel is coupled with the exhaust gas turbine (8), at least indirectly; in an operating state that corresponds to the braking operation with the engine brake, operating the exhaust gas turbine at a first working point (nM, Fig. 4), the first working point having a maximum acceptable limiting speed (ng) of the exhaust gas turbine with a minimum outputtable moment (col. 6, line 12), and in an operating state that corresponds to partial load operation or thrust operation, operating the exhaust gas turbine at a second working point (col. 6, line 47), the second

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working point having a minimum speed (n_L) and a minimum receivable moment (n_L of engine speed), wherein adjusting of the first and second working points is conducted via the hydrodynamic coupling, wherein the transferable moment of the hydrodynamic coupling corresponds to the minimum moment that can be output or received by the exhaust gas turbine over most of the speed difference that characterizes the slip range (col. 5, lines 5-11), taking into consideration the gear ratio or multiplication of the transfer elements in the transfer device relative to the exhaust gas turbine (Fig. 4).

3. Regarding claims 12-17, Hiereth et al. disclose the method of claim 11, including the hydrodynamic coupling having a constant filling ratio (f , Fig. 4), the filling ratio having a moment course which lies, over a substantial portion of the slip range (n_L to n_E), in the region of the minimum moment that can be received or output by the turbine (line f , Fig. 4), controlling a filling ratio of the coupling based on a regulated open loop (col. 6, lines 44-47) and wherein the regulation of the filling ratio is regulated by the pressure difference between the inlet and outlet of the working chamber (col. 6, lines 51-58), the working points adjusted by closed loop operation (constant filling ratio, Fig. 4) or open loop regulation (variable fill rate, Fig. 4) of the speed or value of the turbine that characterizes the speed (pressure difference, col. 6, lines 51-58), comparing a value (pressure) that characterizes the speed of the turbine and continuously determined to the set speed (n_a) that is to be adjusted, producing a set value for controlling the coupling in advance as a function of the regulated deviation (col. 5, lines 40-49).

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4. Regarding claims 18-22, Hiereth et al. disclose the driveline, coupling and method of claims 11 and 12 further comprising detecting an operating state of the braking operation with the engine brake in the presence of a speed of the turbine (n_a) that is greater than the speed of the crankshaft (abscissa, Fig. 4) taking into consideration the gear ratio or multiplication of the transfer device and detecting the partial load operation in the presence of a speed in the turbine (n_a) again taking into consideration the multiplication of the transfer device smaller than the speed of the crankshaft excluding full load operation (Fig. 4), a driveline wherein the coupling is an open-loop regulatable coupling with a variable filling ratio (col. 6, lines 51-58) and the coupling has a control device that comprises a setting device for forming the set value for the control of a setting device of the coupling (col. 5, lines 26-32).
5. Regarding claim 24, Hiereth et al. disclose the coupling of claim 21 including the first and second working points adjusted by closed-loop control of the speed of the turbine (constant fill ratio, n_a , Fig. 4) and open-loop regulation of the turbine speed (variable fill ratio, n_a , col. 6, lines 44-47).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas J. Duff whose telephone number is (571) 272-3459. The examiner can normally be reached on M-F 7 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Douglas J. Duff

DJ Duff 10/3/07

Thomas Denion
THOMAS DENION
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700